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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,347

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Fumio Kato

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EXAMINER

ARCIERO, ADAM A

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

02/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,347	Applicant(s) KATO ET AL.	
	Examiner ADAM A. ARCIERO	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1795

ALKALINE BATTERY

Examiner: Adam Arciero

S.N. 10/567,347

Art Unit: 1795

February 13, 2009

DETAILED ACTION

1. The Applicant's amendment filed on October 27, 2008 was received. Claims 1-6 are currently amended.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The claim rejections under 35 U.S.C. 112, second paragraph, on claims 1-6 are withdrawn, because Applicant's arguments are found to be persuasive.

Claim Rejections - 35 USC § 103

4. The claim rejections under 35 U.S.C. 103(a) as unpatentable over SEI et al. and DANSUI et al. on claims 1-2 are withdrawn, because claims 1-2 have been amended.

Claim Rejections - 35 USC § 102/35 USC § 103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1795

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over YAMAMOTO (WO/2003/044883 using US 2004/0101754 A1 as an English equivalent).

As to Claims 1-2, YAMAMOTO discloses a non-aqueous primary battery comprising a positive electrode, negative electrode with associated active materials, and a separator disposed between said electrodes, and an electrolyte (Abstract). YAMAMOTO further discloses a method for producing a beta-type nickel oxyhydroxide spherical particle for a positive electrode mix (pg. 4, [0074] to pg. 5, [0075]). YAMAMOTO discloses in which nickel hydroxide is first produced by a mixture of a water-solution containing nickel sulfate and zinc sulfate at a specific ration, an ammonium sulfate and an sodium hydroxide are also present in the mixture and said mixture is stirred (pg. 5, [0075]). Said nickel hydroxide is then put in a mixed solution of sodium hydroxide and an oxidizer such as sodium hypochlorite, thereby chemically oxidizing the nickel hydroxide to a beta-type nickel oxyhydroxide (pg. 5, [0076]). YAMAMOTO does not expressly disclose the nickel having a mean valence of 2.95 or more, or more specifically a mean valence of 3 or more. YAMAMOTO does not expressly disclose the power X-ray diffraction profile of the spherical nickel oxyhydroxide as claimed in claim 1 wherein the ratio H/W is 10,000 or more and the diffraction peak from an (001) plane is 0.6° or less. However, it is the position of the Examiner that such properties of the material (valency and half-width and ratio of diffraction peak) are inherent, given that the beta-type nickel oxyhydroxide material disclosed by YAMAMOTO and the present application are made by very similar processes. A reference

Art Unit: 1795

which is silent about a claimed invention's features is inherently anticipatory of the missing feature is necessarily present in that which is described in the reference. Inherency is not established by probabilities or possibilities. *In re Robertson*, 49 USPQ2d 1949 (1999).

Applicant is advised to submit other information with respect to YAMAMOTO's positive active material, if it is shown to be patentably distinct from the instant invention.

Alternatively, it would have been obvious to one of ordinary skill in the art to adjust the amount of zinc added to the solid-solution of nickel oxyhydroxide because YAMAMOTO teaches that the discharge capacity can be improved when using an amount equal to or more than 0.5 wt % (pg. 5, Table 3 and [0081]-[0082]).

As to Claims 5-6, YAMAMOTO discloses wherein the positive active material further comprises zinc in the range of 0.5-8 wt% (pg. 4, to pg. 5, [0074]).

7. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over YAMAMOTO (WO/2003/044883 using US 2004/0101754 A1 as an English equivalent) as applied to claims 1-2 and 5-6 above, and further in view of HIDEO et al. (EP 0 831 542 A1).

As to Claims 3 and 4, the disclosure of YAMAMOTO as discussed above in claims 1 and 2 is incorporated herein. YAMAMOTO does not expressly disclose wherein the spherical nickel oxyhydroxide carries a cobalt oxide and the cobalt contained in said cobalt oxide has a mean valence of greater than 3, and wherein said cobalt oxide is in the amount of 0.5-15 parts by weight per 100 parts of weight of said spherical nickel oxyhydroxide.

However, HIDEO et al. teaches a lithium secondary battery comprising a positive electrode which comprises a positive active material. Said active material comprises nickel

Art Unit: 1795

oxyhydroxide wherein nickel is trivalent (col. 2, lines 29-34) giving a crystal of a beta-type structure. Cobalt is also added when producing the active material in a trivalent state (col. 2, lines 29-34) in an atmosphere consisting of air (col. 3, lines 30-33) thereby providing cobalt oxide. Therefore the nickel oxyhydroxide carries a cobalt oxide wherein the cobalt contained in said cobalt oxide has a mean valence of 3. Example 1 provided the complex oxyhydroxide of nickel and cobalt as $\text{Ni}_{0.85}\text{Co}_{0.15}\text{OOH}$, so cobalt is provided in an amount of 15 parts by weight per 100 parts of weight of said spherical nickel oxyhydroxide (example 1, col. 4, lines 53-54). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the active material of YAMAMOTO with cobalt in an atmosphere consisting of air in an amount of 15 parts by weight of the total composition of nickel oxyhydroxide so that a large specific capacity can be obtained, as suggested by HIDEO et al. (col. 3, lines 16-19).

Response to Arguments

8. Applicant's arguments filed on October 27, 2008 have been fully considered but they are moot in view of new grounds of rejection as necessitated by Applicant's amendments..

Applicant's principal arguments are:

a) *HIDEO et al.* pertains to an alkaline storage battery, not an alkaline primary battery (claims 1-6).

In response to Applicant's arguments, please consider the following comments.

a) An alkaline secondary battery reads on the limitations of a primary batter, because a secondary battery can perform the primary function of a battery (discharging), and does not

Art Unit: 1795

require to be recharged (secondary function). Therefore, a secondary battery can function as a primary battery.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM A. ARCIERO whose telephone number is (571)270-5116. The examiner can normally be reached on Monday to Friday 8am to 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1795